

CLAIM AMENDMENTS

21. (previously presented) A device for decorating ceramic tiles, the device comprising

projection means for projecting ink on each tile in order to print a pattern on the tile, said tile arranged on a conveyor means for conveyance in accordance with a trajectory;

at least one printing head respectively comprising at least two printing modules that are connected to a control unit, each of the printing modules being arranged to project ink on the tile in accordance with a marking width corresponding to a portion of a tile width;

operation of each printing module being independently controlled by the control unit,

each printing module comprising an independent microprocessor and an independent memory, and

each printing module being an extractable module comprising connecting means for individual connection to the printing head;

wherein the printing modules are arranged in parallel with a degree of nonalignment with respect to each other and obliquely with respect to the trajectory of the tile, such that the marking width of each printing module extends to the marking width of at least one adjacent printing module.

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22. (previously presented) A device according to claim 21, wherein the marking widths of the printing modules cover at least the tile width.

23. (previously presented) A device according to claim 21, wherein the microprocessor and the memory comprised in each printing module are connected to the control unit by means of a control circuit arranged in said each printing module.

24. (previously presented) A device according to claim 21, wherein said at least one printing head comprises a plurality of serially-arranged printing heads, and wherein the printing modules of the plurality of printing heads are arranged such that the marking widths thereof cover at least the entire tile width.

25. (previously presented) A device according to claim 21, comprising at least as many parallel-arranged printing heads as printing colors are required to print the pattern.

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26. (previously presented) A device according to claim 21,
wherein the control unit comprises communication means for
connecting with other computers and to allow remote management and
verification of the device.

27. (previously presented) A device according to claim 21,
having a printing quality higher than 200 dpi.

28. (previously presented) A printing device for printing on
surfaces, the device comprising

projection means for projecting ink on a surface of an flat
article in order to print a pattern on said surface, said flat
article arranged on a conveyor means for conveying the flat article
in accordance with a trajectory;

at least one printing head respectively comprising at least two
printing modules that are connected to a control unit, each of the
printing modules being arranged to project ink on the surface in
accordance with a marking width corresponding to a portion of a
surface width of the flat article;

operation of each printing module being independently
controlled by the control unit,

each printing module comprising an independent microprocessor
and an independent memory, and

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each printing module being an extractable module comprising connecting means for individual connection to the printing head;

wherein the printing modules are arranged in parallel with a degree of nonalignment with respect to each other and obliquely with respect to the trajectory of the flat article, such that the marking width of each printing module extends to the marking width of at least one adjacent printing module.

29. (previously presented) A printing device according to claim 28, wherein the marking widths of the printing modules cover at least the surface width.

30. (previously presented) A printing device according to claim 28, wherein the microprocessor and the memory comprised in each printing module are connected to the control unit by means of a control circuit comprised in the printing module.

31. (previously presented) A printing device according to claim 28, comprising a plurality of series-arranged printing heads, the printing modules comprised in the printing heads being arranged such that the marking widths thereof cover at least the entire surface width.

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32. (previously presented) A printing device according to claim 28, comprising at least as many parallely-arranged printing heads as printing colors are required to print the pattern.

33. (previously presented) A printing device according to claim 28, wherein the control unit comprises communication means for connecting with other computers and to allow remote management and verification of the device.

34. (previously presented) A printing device according to claim 28, having a printing quality higher than 200 dpi.
